

**Michigan Department of  
Environment, Great Lakes, and Energy  
Oil, Gas, and Minerals Division**

Response to Public Comments – Part 637 Sand Dune Mining Permit Renewal application by Sargent Sand, Ludington Site, Permit SAS-LS-108, Hamlin Township, Mason County, Michigan.

**Introduction and Background**

Sargent Sand Company (Sargent) submitted a sand dune mining permit renewal application pursuant to Part 637, Sand Dune Mining, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Part 637).

Part 637 Sand Dune Mining permits are valid for 5 years and must be renewed if mining is to continue. Mining at Sargent's Ludington site has been occurring since the early 1900's and the Sargent family has been mining there since 1937. Following enactment of the Sand Dune Mining statute in the mid 1970's, Sargent Sand was formally permitted in 1981. The last renewal in 2017 was due for renewal on December 31, 2021. The permit renewal application was submitted in a timely manner. It was received October 8, 2021.

As part of the review of the permit renewal application, Department of Environment, Great Lakes, and Energy (EGLE) requested public comment by placing notice in the EGLE-Environmental Calendar on November 15, 2021, as well as on the EGLE, Oil, Gas, and Minerals Division (OGMD) webpage. The OGMD is not required to receive public comment, but it is done as a matter of practice and in the interest in transparency to allow for public input. During the public comment period, the OGMD received 7 written comments on the Sargent renewal. One request was made for EGLE to hold a public hearing, and one separate inquiry was made by another individual asking when a public meeting would be held. The OGMD is not required to conduct a public hearing under any provisions of Part 637. Due to the level of interest in a hearing, it was determined that a hearing would not be held.

The OGMD is not responding directly to individual public comments; however, the OGMD has grouped and reviewed each comment written and oral. Comments have been evaluated with respect to Part 637 renewal criteria. Commenters requested the denial of the Part 637 renewal. While OGMD acknowledges these desires, the requirements of Part 637 must be adhered to in the renewal decision. Comments were generally grouped into three main categories: health and safety, environmental and natural resource protection, and quality of life.

The OGMD considered all comments for applicability in the Part 637 renewal decision review. The renewal review also included site inspections, detailed file reviews, and a review of site photos to determine compliance with Part 637 and Permit SaS-LS-108. The OGMD has determined that Permit SaS-LS-108 is in compliance and has been renewed for an additional 5 years.

**RESPONSE TO COMMENTS**

**Buffers:**

Commenters requested that buffers could also be interpreted as noise or light buffers. Part 637 explicitly states that the progressive cell unit mining and reclamation plans include provisions for buffer areas, landscaping, screening. Any buffer would be a physically defined area on a map.

**Cell Unit 2/Dune:**

Commenters expressed desire that mining of the dune in Cell Unit 2 (CU2) be stopped and the dune be maintained to protect the Piney Ridge neighborhood from wind damage and provide a barrier from noise, light, and mining activities. The western facing slope of the dune in question is located on the east side of CU2.

During the permit application review, OGMD requested that Sargent confirm whether economic production of sand is complete in CU2, and to provide a timeline and details for reclamation of the western-facing slope of the dune in CU2, such that no destabilization of the dune occurs from protracted final reclamation. Sargent responded, providing the requested details.

Sargent has not completed economic production of sand from CU2, and the timeframe for completion of mineral extraction is based on market demand. Sargent states it does not anticipate any further significant excavation to the east of the upper westerly slope in CU2, although final shaping may occur to complete stable westerly-facing slope profiles.

Slope stabilization measures have been implemented in CU2 during the mining process, and include slope grading, placement of snow/wind fence, temporary seeding/mulching, graveling temporary haul roads, and redistribution of surface overburden including native plant material. Additionally, the perimeter of CU2 is monitored for wind-blown sand. Any migrated sand is returned to the mining area and stabilization measures are taken in that area such as snow/wind fence placement or dune grass plantings. These measures have been observed by OGMD inspections.

Migration of the dune in CU2 is a concern also expressed in the comments. During the previous permit renewal cycle, historical photographs were examined. A request was made that OGMD share the photographs. They are included as an appendix at the end of this document.

**Comparative Model to Sleeping Bear:**

A request was made for OGMD to compare Sleeping Bear Dunes National Lakeshore protection to the dune system at Sargent. This is outside the purview of Part 637 permit renewal requirements.

**Deny/Do Not Renew:**

Part 637 requires the permit to be renewed if the permittee is in compliance with the statute, rules, and conditions of the permit issued by the department.

**Environmental Damage:**

OGMD acknowledges the concern over the environmental impacts from mining operations. The environmental standards and criteria under the NREPA are designed to address those concerns, and the decision to grant or deny a permit renewal is based on whether the application conforms to those standards and criteria.

**Increase Monitoring/Oversight:**

A request was made to increase monitoring and oversight if the permit is renewed. OGMD is given authority under Part 637 to monitor and oversee the site. Sand dune mining sites are inspected regularly. During times of active mining, sites are inspected more frequently to ensure the conditions of the permit are adhered to. Beyond routine site inspections of mining operations, site inspections also occur in response to complaints, as compliance follow-up, to perform field reviews for permit applications, in response to cell unit status change requests, and for site reclamation purposes.

**Health Risks:**

Commenters expressed concern about particulates in the air and silicosis related to mining. The EGLE acknowledges the concern over silicosis from mining operations. The emissions of particulate matter from Sargent Sand Company are not expected to result in silicosis or other adverse health effects, even for sensitive individuals.

Sand dune mining generates dust, which is also called particulate matter (PM). To minimize PM emissions, Sargent Sand Company is required by the EGLE Air Quality Division (AQD) to follow a fugitive dust control plan and use dust control for sand drying and processing operations. AQD evaluated the emissions of PM from Sargent Sand Company and found that they are less than the Significant Emission Rate (SER) set by the U.S. Environmental Protection Agency (EPA). PM emissions below the SER are expected to result in air concentrations that are less than the National Ambient Air Quality Standards (NAAQS) for PM. The EPA states that the NAAQS, "Provide public health protection, including protecting the health of 'sensitive' populations such as asthmatics, children, and the elderly." (<https://www.epa.gov/criteria-air-pollutants/naaqs-table>)

An additional concern from mining sand is that PM emitted from sand mining naturally contains some crystalline silica. At relatively high levels of exposure over long durations, breathing crystalline silica can potentially cause adverse effects in the lungs, including silicosis. However, the EPA (1996) determined that PM emissions with 10 percent crystalline silica or less would not cause silicosis if the PM emissions are less than the NAAQS (USEPA, 1996). The PM emissions from the type of sand mined by Sargent Sand Company are expected to have approximately 10 percent crystalline silica (Cauda et al, 2014).

**References**

Emanuele Cauda, Gerald Joy, Arthur Miller, Steven Mischler (2014) Analysis of the Silica Percent in Airborne Respirable Mine Dust Samples From U.S. Operations, U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health, Office of Mining Safety and Health Research, Pittsburgh, PA 15217, United States of America.

U. S. Environmental Protection Agency (USEPA) (1996) Ambient Levels and Noncancer Health Effects of Inhaled Crystalline and Amorphous Silica: Health Issue Assessment. EPA/600/R-95/115. Office of Research and Development. Washington, DC 20460.

**Heavy Truck Traffic:**

Truck traffic is not within the OGMD regulatory purview under Part 637.

**Wetlands, Part 301, Part 303 Permits:**

Wetland regulation is outside of the purview of Part 637. Part 303, Wetlands Protection, of NREPA, is administered by the Water Resources Division of EGLE. A permit issued under Part 637 does not waive the necessity of obtaining any applicable federal or local permits or complying with other state statutes, if applicable.

**January 30, 2018 fire/Safety Citations:**

A fire at the facility was responded to by the Hamlin Township Fire Department. The fire resulted from a heater in a shed which spread to some adjacent tires and part of the conveyor belt. OGMD worked with the fire department, Sargent, and Sargent's consultant to understand potential impacts, oversee soil excavation and disposal from area around burned tires, and to

ensure the PHOS-Check DE881 Fire Retardant Foam did not contain PFAS. The matter was considered resolved and not a violation of Part 637.

A list of citations issued to Sargent by the Mine Safety and Health Administration (MSHA) was submitted with the comments. MSHA oversight of Sargent is outside of the purview of Part 637 permit renewals.

**Legislation Needed to End Grandfathered Activity:**

Public comments were submitted in the form of requests made to US and State senators and individuals high in the executive level of state government that legislation be introduced to end the grandfathered activity of sand dune mining. This is outside the purview of a Part 637 permit renewal criteria, but it is noted of the desire that these activities not be continued. The very nature of Part 637 is one of a compromise between existing activities and the minimization of future such activities. Mining under Part 637 has been reduced from 33 permitted mines to 6 currently permitted mines.

**Land Use Conflict Between Mining, Tourism, and Peaceful Enjoyment of Property:**

Tourism is not within OGMD regulatory purview under Part 637. The Ludington State Park General Management Plan approved March 1, 2016 indicates the park is considered to be the area's top tourist attraction, and eloquently recognized as the "Queen of Michigan State Parks." The plan does identify "continue to explore land acquisition of the properties within the Project Boundary, with emphasis on the Sargent Sand property" as a Management General Action Goal. In 2018, the permitted sand dune mine area was greatly reduced through a transfer of 100-acres to the Michigan Department of Natural Resources and as an expansion of Ludington State Park. As part of this transfer, approximately 60 acres of unmined sand dune are being preserved.

OGMD recognizes the conflicts over land use between extractive industries and residents in the vicinity of such development. The goal of the OGMD is to minimize such conflicts while adhering to the authority given to OGMD by the legislature under Part 637. As mentioned elsewhere in this response document, Part 637 does not regulate noise, but OGMD does follow up on complaints with site inspections.

**New Environmental Impact Statement Required:**

Part 637 does not set forth a requirement of submitting a new Environmental Impact Statement (EIS) with each permit renewal. If the footprint of a mine is expanded beyond the areal extent covered by the original EIS, then a new EIS would likely be appropriate. In fact, this site has decreased in size since the original permit was issued, and again in 2018 due to the property transfer.

Commenters have asserted that changes to the operations have occurred beyond the scope defined in the original permit, but this is not the case. Specific volumes produced is confidential but in general, production for the site has not exceeded original estimates.

**Noise:**

There are general permit conditions on all Part 637 permits which indicate, "*The permit does not authorize injury to private property or invasion of public or private rights, nor does it waive the necessity of obtaining any applicable federal or local permits or complying with other state statutes.*" A commenter indicated that the noise from the mine violated this general permit condition. Sand dune mining activities and operations can and do create noise. Part 637 does not regulate noise; however, as a matter of practice, OGMD does follow up and inspect when

noise complaints have been submitted. There have been a few noise complaints received since the last renewal of this permit. The most recent noise complaint was received in July of 2019. During inspections, OGMD takes readings with a decibel meter at the edge of Sargent property near the complaint. To date, all inspections indicate that the readings have been within the 40-60 decibel range, below the workplace standard established by Michigan Occupation Safety and Health Administration (MIOSHA). OGMD has also observed Sargent to be monitoring noise as a matter of routine and keeping a log of the readings. OMGD will continue to respond to noise complaints and address noise related matters with Sargent as practical and according to our authority under Part 637.

**Pitcher's Thistle:**

A 1994 amendment of the Progressive Cell-Unit Mining and Reclamation Plan (PCUMRP) addressed Pitcher's Thistle identification and mitigation steps during the mining process. When mining activities or other activities are planned and implemented, a walk around survey will be planned before these activities are performed to observe for Pitcher's Thistle. Sargent progressive cell unit mining and reclamation plan of 1994 commits that it is the intention of Sargent Sand to mitigate potential damage of Pitcher's Thistle by:

- a. Making all Sargent Sand employees and contractors aware of the potential existence of the plant.
- b. Carefully walking the planned mining or activity site by a responsible Sargent Sand management person to observe for new or existing plant growth.
- c. Identifying the Pitcher's Thistle plant, when observed, and identifying each plant or cluster location by staking each location with a highly visible flag. A map indicating each location will be maintained.
- d. Relocation of each Pitcher's Thistle to a location that is not in the normal foot or vehicular traffic when mining activity is required. A suitable location will be selected that will be not disturbed, in the opinion of Sargent Sand management, for several years.
- e. Notification of the OGMD, by letter, of the relocation of such plants.

Since the last renewal of the permit, OGMD has been aware of the relocation of Pitcher's Thistle in Cell Unit 17 and Cell Unit 16 buffer areas in the 2017 timeframe, and the availability of a map indicating the locations. During OGMD on-site inspections at the time, these plants were observed, and this activity was discussed. Additionally, OGMD was notified by email in 2019 of the commencement of a threatened & endangered species site review for Cell Unit 20. Cell units 17, 19, 20 have been opened since the last permit renewal.

During the permit renewal application review, OGMD had Sargent confirm in writing, as a notification consistent with Sargent Sand's 1994 amendment of the PCUMRP, Pitcher's Thistle relocation activities that had transpired since the 2017 permit renewal, and to make a map available indicating the location of the Pitcher's Thistle plants. Sargent provided information on the relocation of Pitcher's Thistle plant from Cell Unit 17. Cell Units 19 and 20 were found to be primarily forested during joint OGMD and Sargent walk-throughs and did not have suitable Pitcher's Thistle habitat. A walkthrough was completed in Cell Unit 20 late in the 2021 mining season, prior to commencement of land clearing and mining activities. Pitcher's Thistle was not observed. Sargent has stated that the map showing Pitcher's Thistle locations is available for OGMD to view during site inspections.

OGMD will continue to monitor Sargent's Pitcher's Thistle inspection and relocation activities as it pertains to the PCUMRP for this site.

**Public Comments Dismissed:**

A comment was made expressing disapproval on OGMD's handling of response to comments from the 2016 permit renewal cycle. The OGMD is not required to receive public comment, but it is done as a matter of practice and in the interest of transparency, to allow for public input to be addressed. Comments are evaluated with respect to Part 637 renewal criteria. OGMD responds to formal public comments in a consistent manner across its various programs. OGMD did not deviate from this manner in the 2016 renewal or this current renewal cycle and does not agree that public comments have been dismissed as part of this response.

**State of Michigan Land Acquisitions from Sargent:**

Commenters expressed disappointment on a recent deal between Sargent and the State of Michigan falling through, and that the Ludington State Park land acquisition plan hasn't been realized. Commenters requested negotiations with Sargent be restarted.

Although outside the purview of the permit renewal, the Ludington State Park General Management Plan approved March 1, 2016 has identified the Sargent property as a high propriety for acquisition as an inholding. As mentioned, in 2018, 100 acres of Sargent property was sold to the State of Michigan and incorporated into Ludington State Park.

**Very Serious Consequences:**

The phrase "very serious consequences" is applied in local zoning decisions but does not have a specific meaning or application under Part 637. Permit decisions conforming to the environmental standards and criteria under the NREPA are intended to address adverse impacts to the environment, public health and safety, and natural resources, and OGMD assures that those provisions are applied and enforced.

**Increase Monitoring/oversight if permit is approved:**

A request was made to increase monitoring and oversight if the permit is renewed. OGMD is given authority under Part 637 to monitor and oversee the site. Sand dune mining sites are inspected regularly. During times of active mining, sites are inspected more frequently to ensure the conditions of the permit are adhered to. Beyond routine site inspections of mining operations, site inspections also occur in response to complaints, as compliance follow-up, to perform field reviews for permit applications, in response to cell unit status change requests, and for site reclamation purposes

**Operating Hours:**

Part 637 does not grant authority to OGMD to regulate hours of operation.

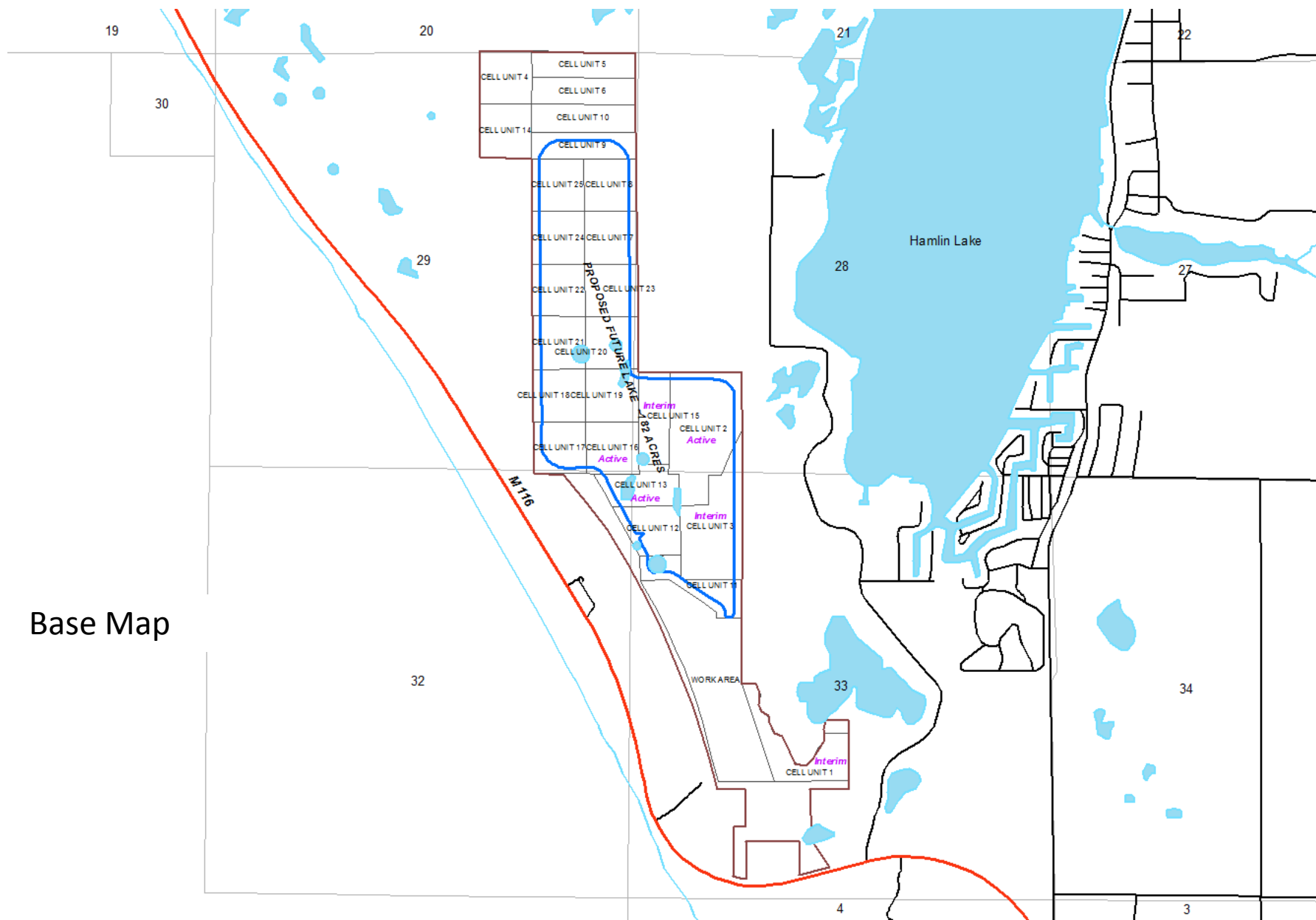
**Sargent's Good Neighbor Commitments:**

A request was made that if the permit is renewed, that OGMD require Sargent Sand Company to provide their good neighbor commitments in writing. These were described as: noise abatement; no evening/weekend operating hours, sharing those hours with the public, including a definition of evening work; airborne sand monitoring on Piney Ridge Rd as linked to mining/silicosis; and an allowable scope for logistics and trucking affecting tourism and bicycling on M-116.

This request is outside of the purview of Part 637. Sargent Sand, as a holder of a Part 637 permit, is beholden to the sand dune mining laws and rules. Noise abatement, operating hours, and truck traffic, as mentioned in other areas of this response to comments document, are outside of the purview of Part 637. Airborne sand and silicosis have been discussed in a separate section of this document as well.

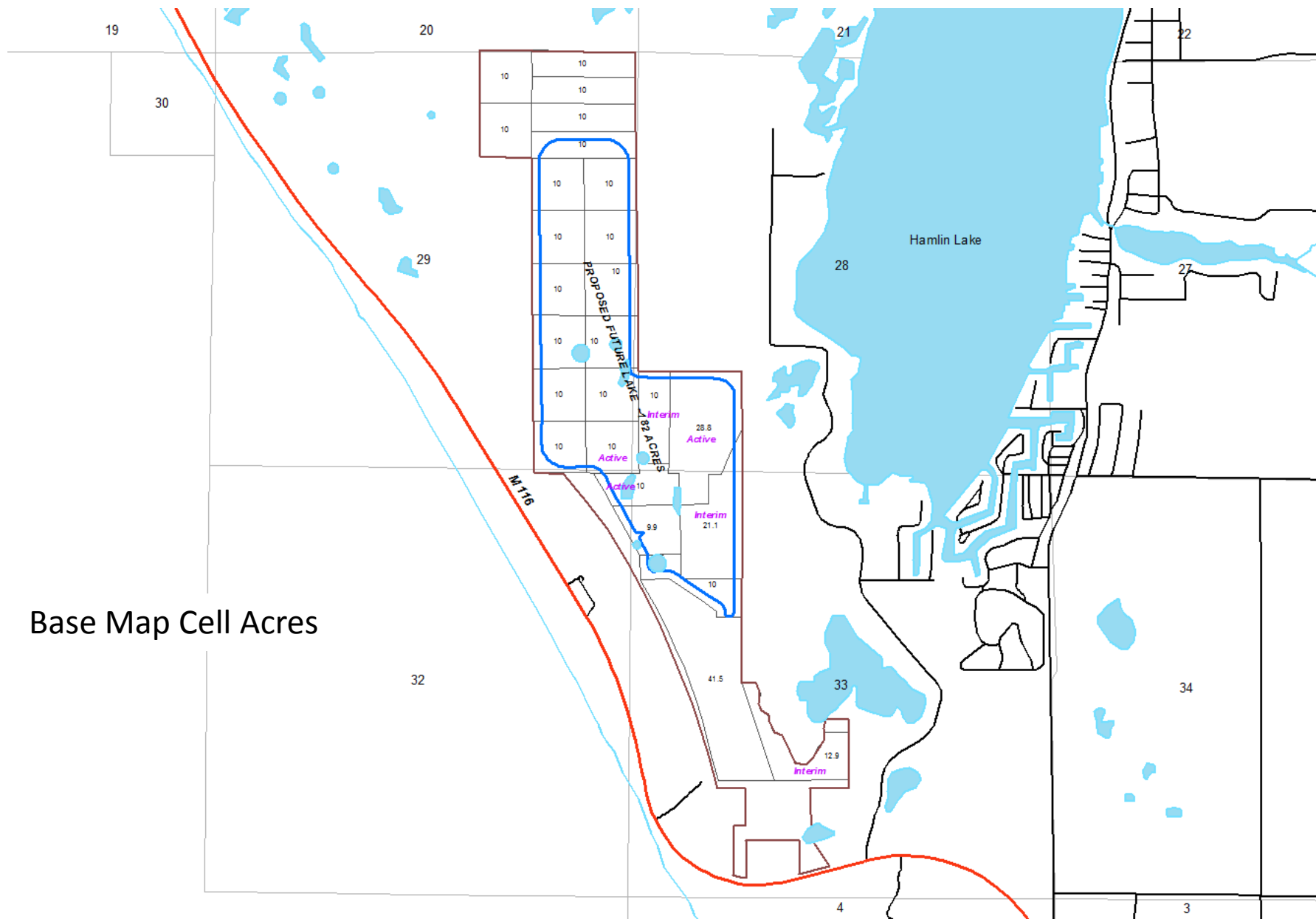
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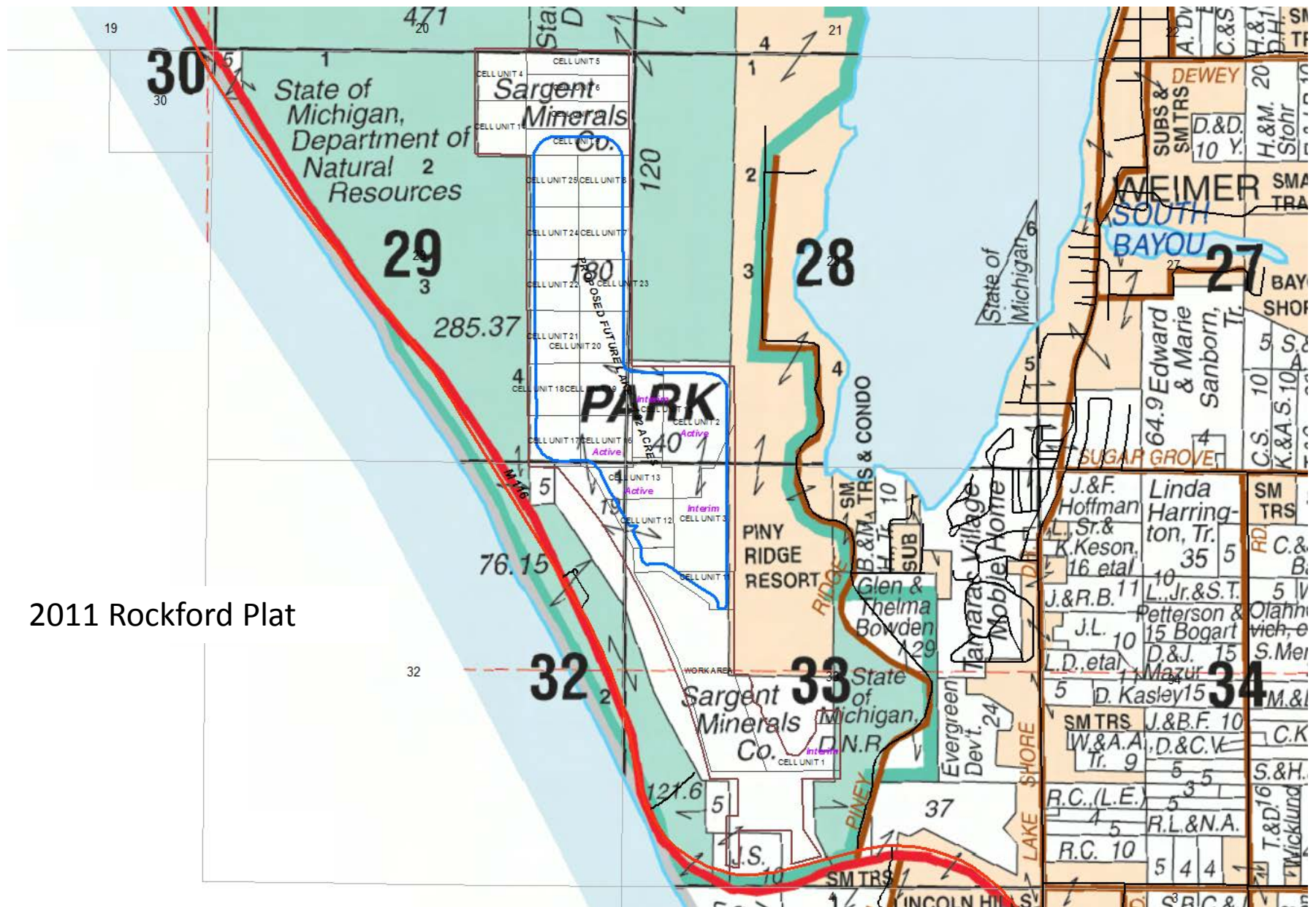
# Base Map



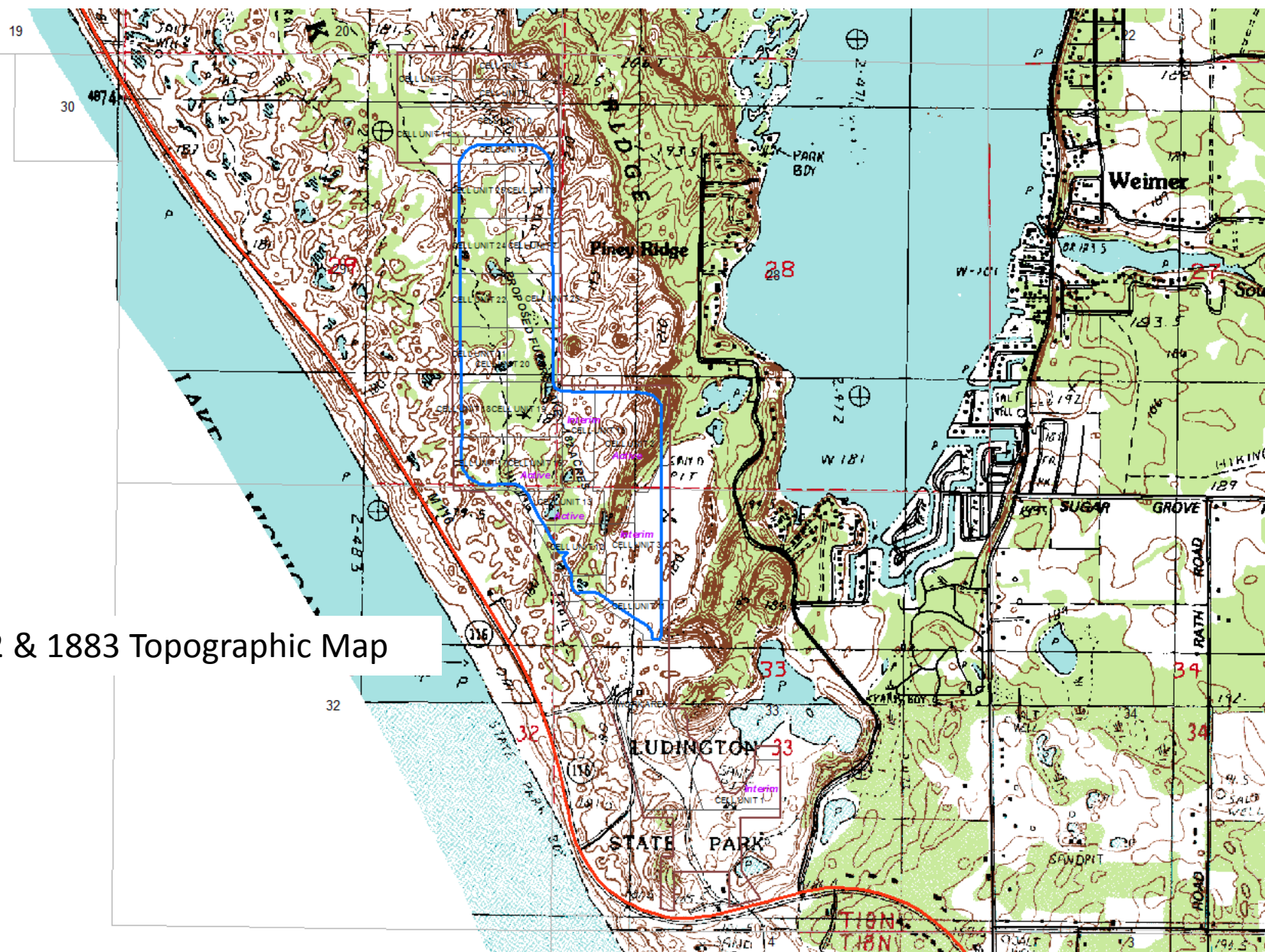


Base Map Cell Acres





2011 Rockford Plat

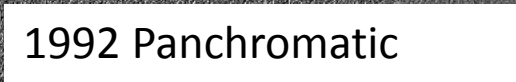


1982 & 1883 Topographic Map

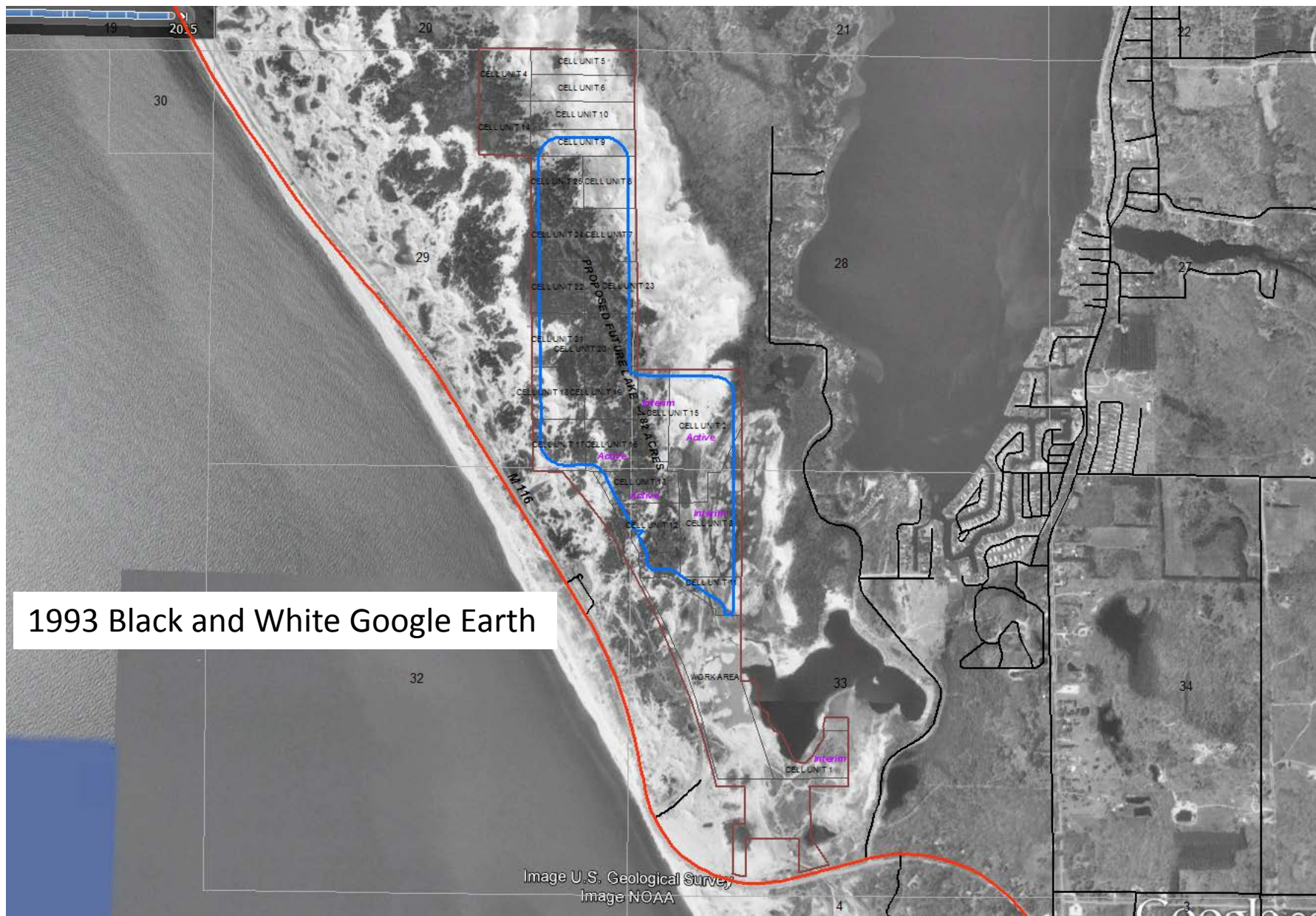






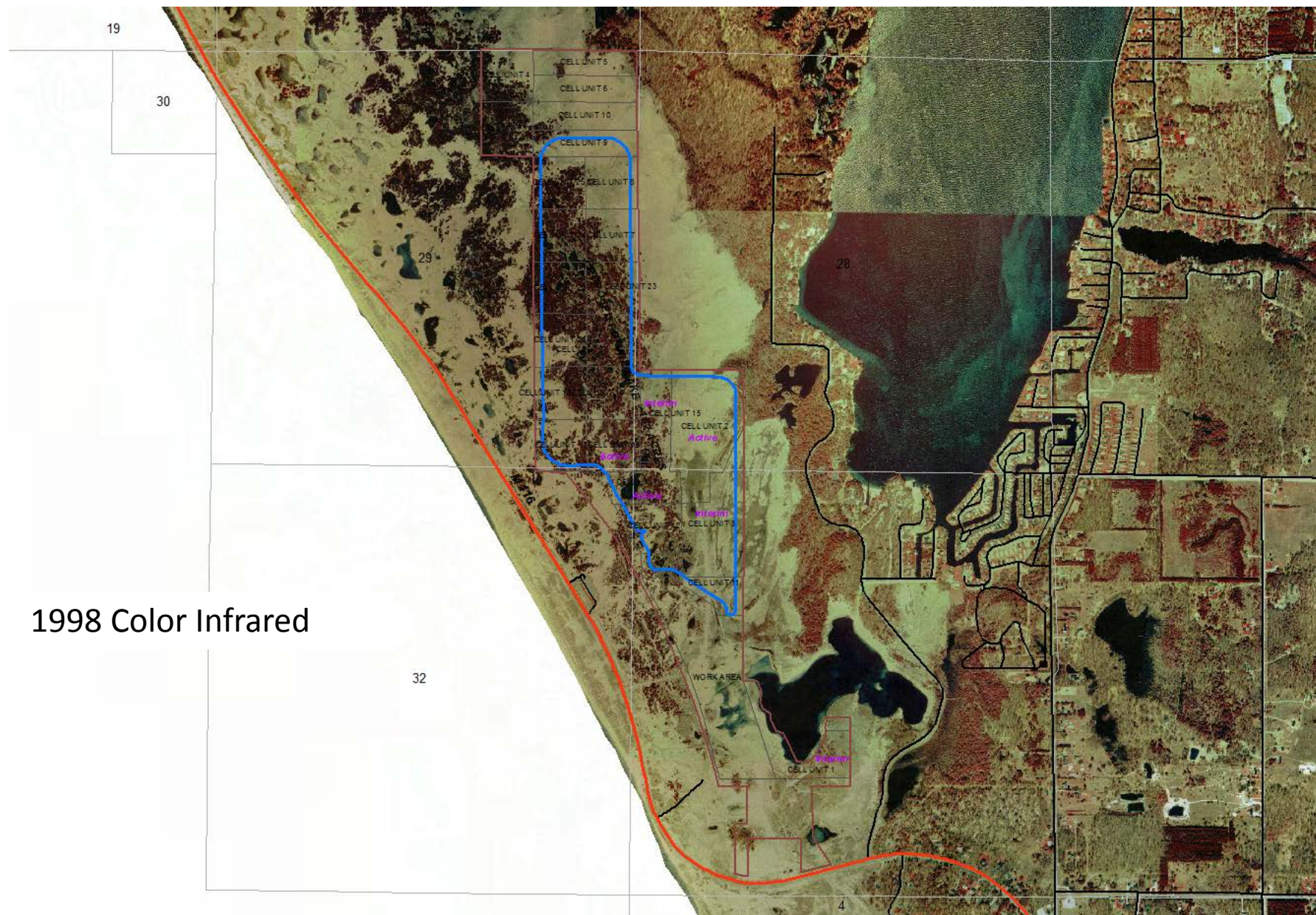




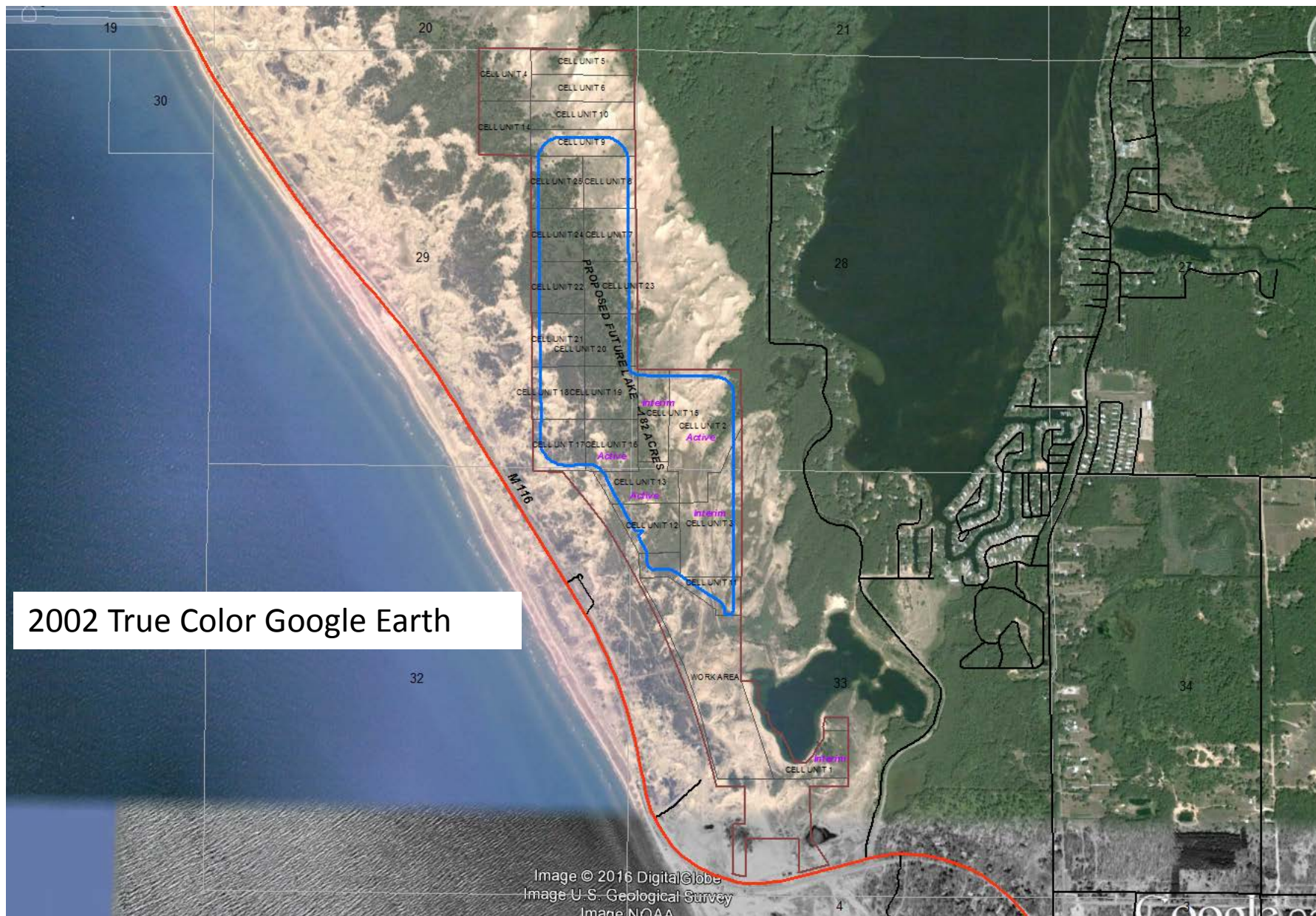


1993 Black and White Google Earth

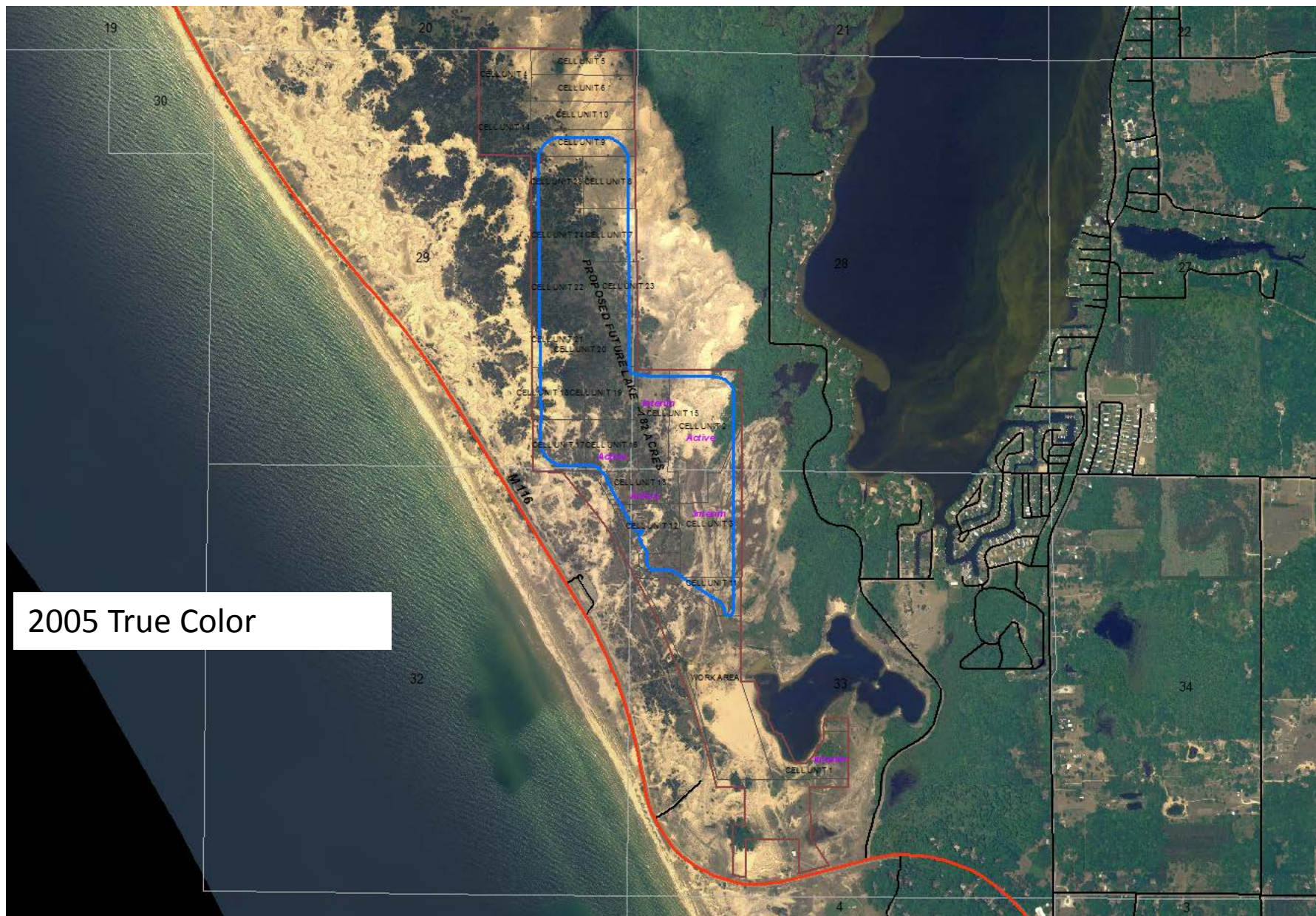










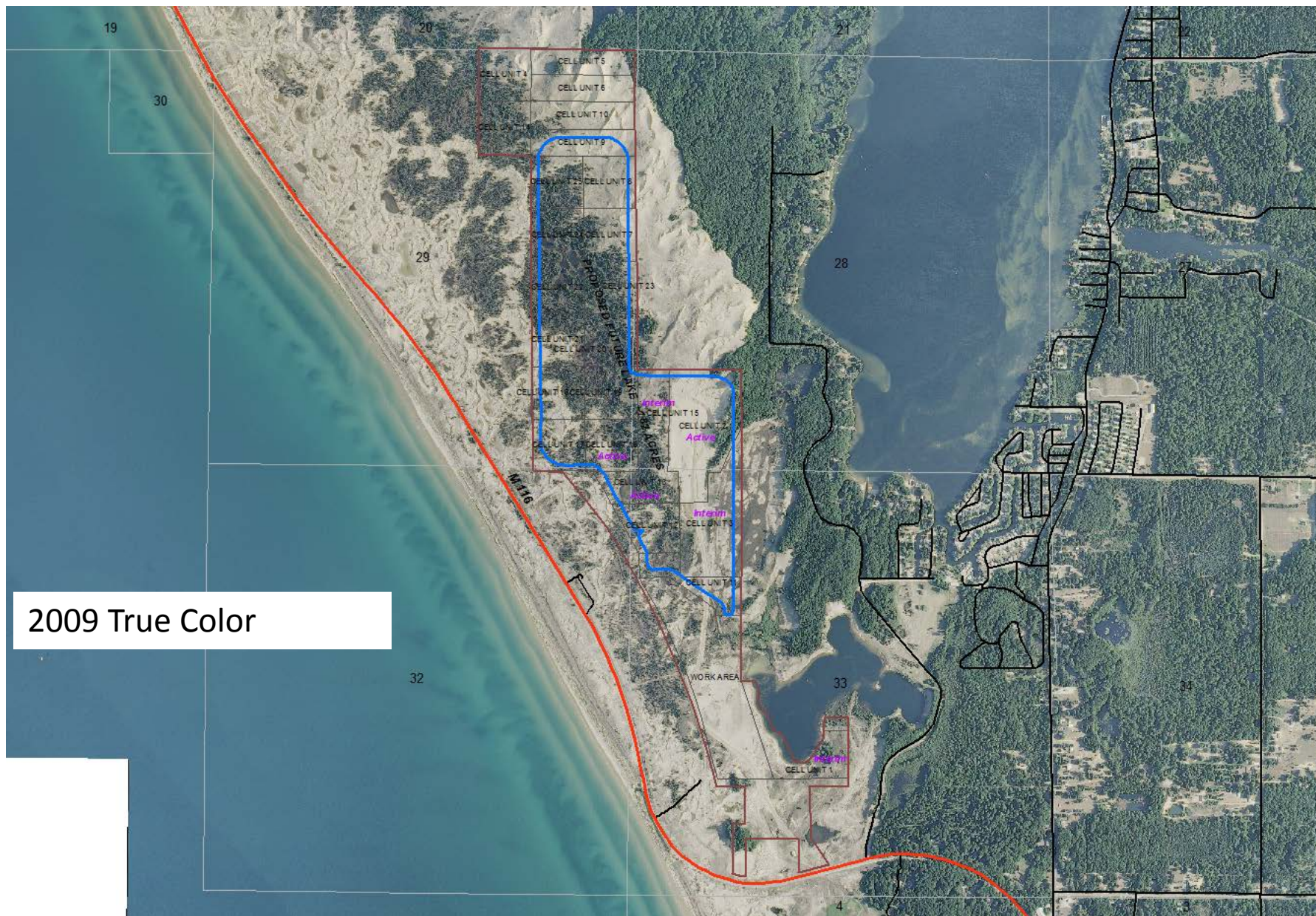


2005 True Color



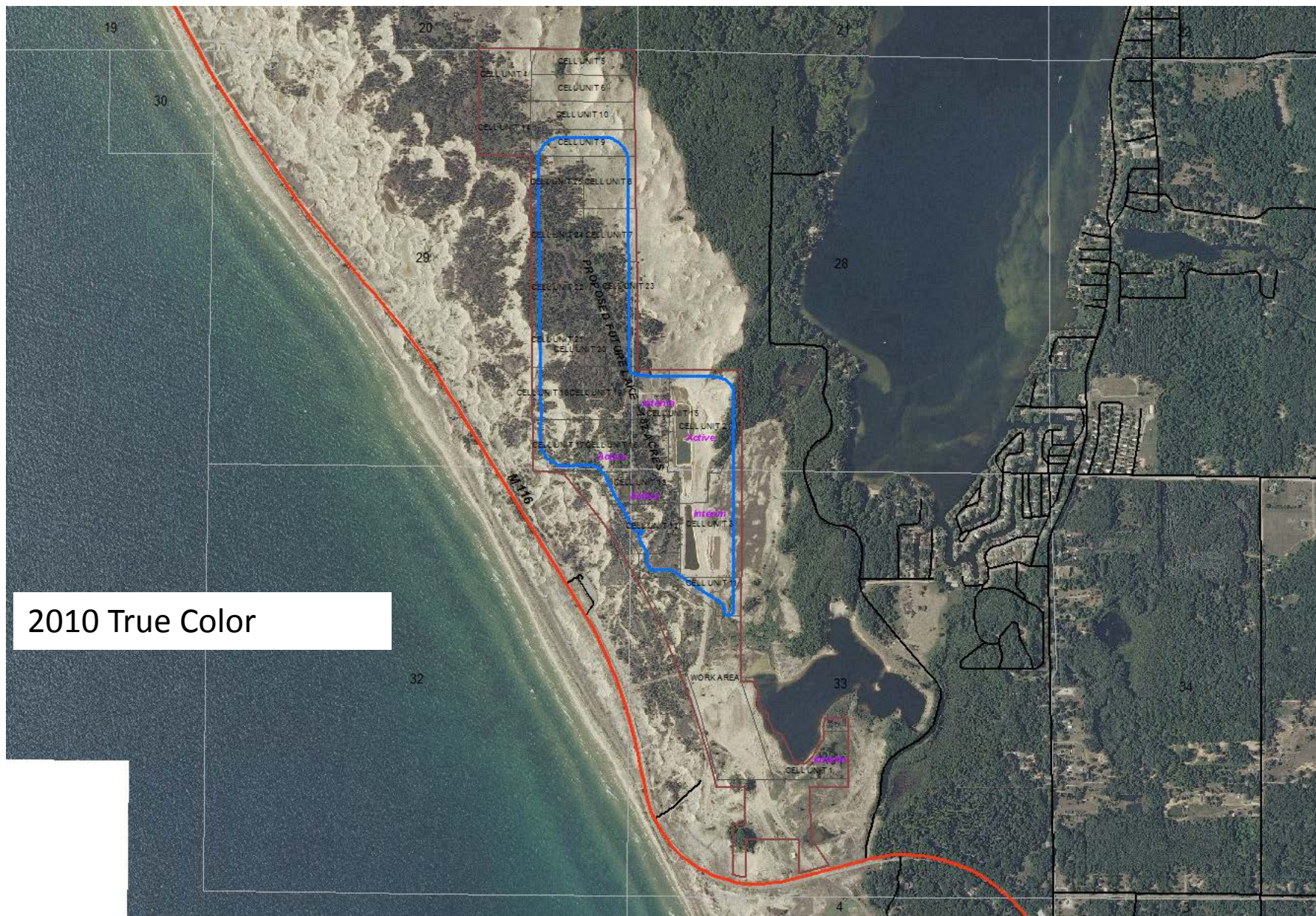






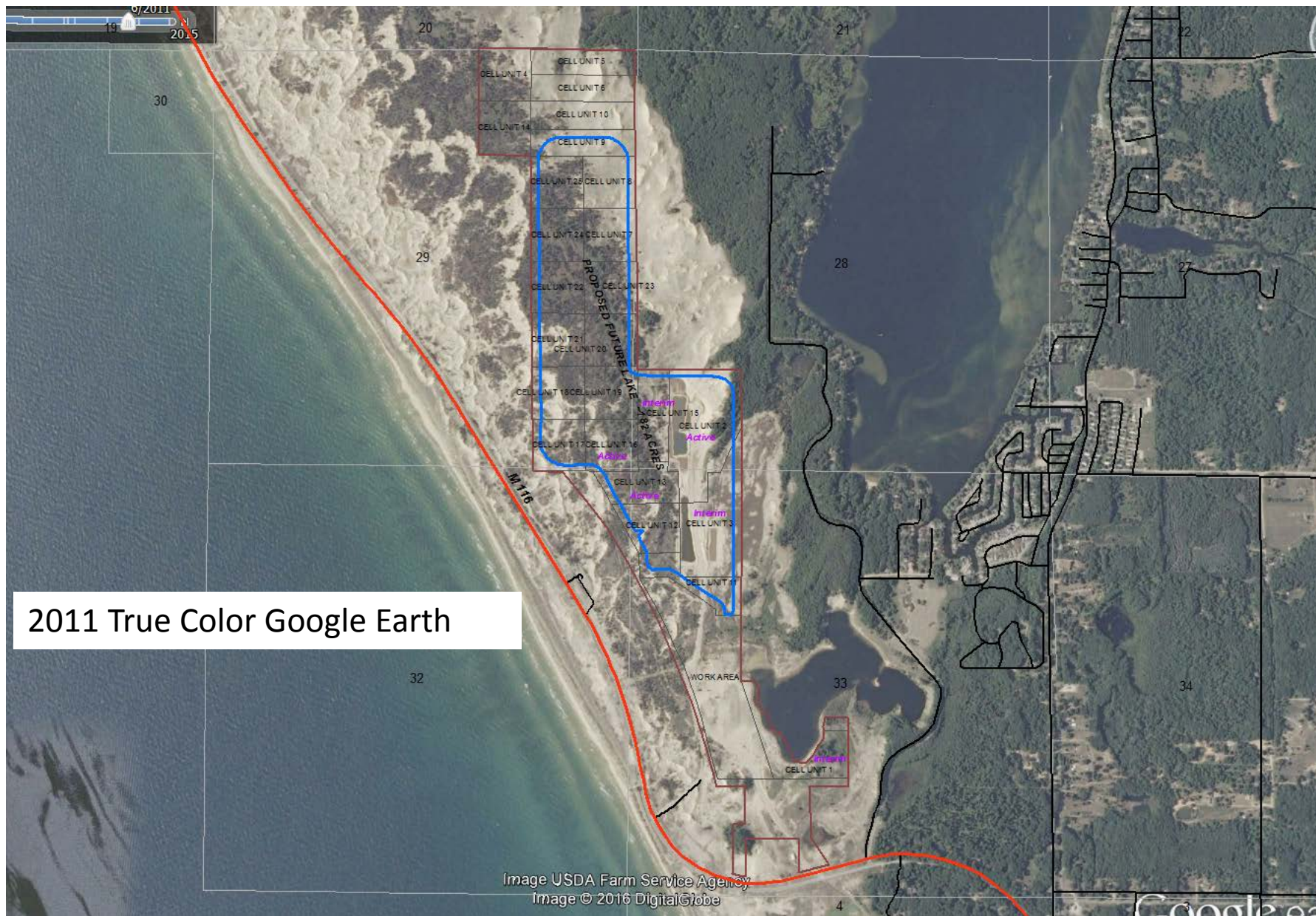
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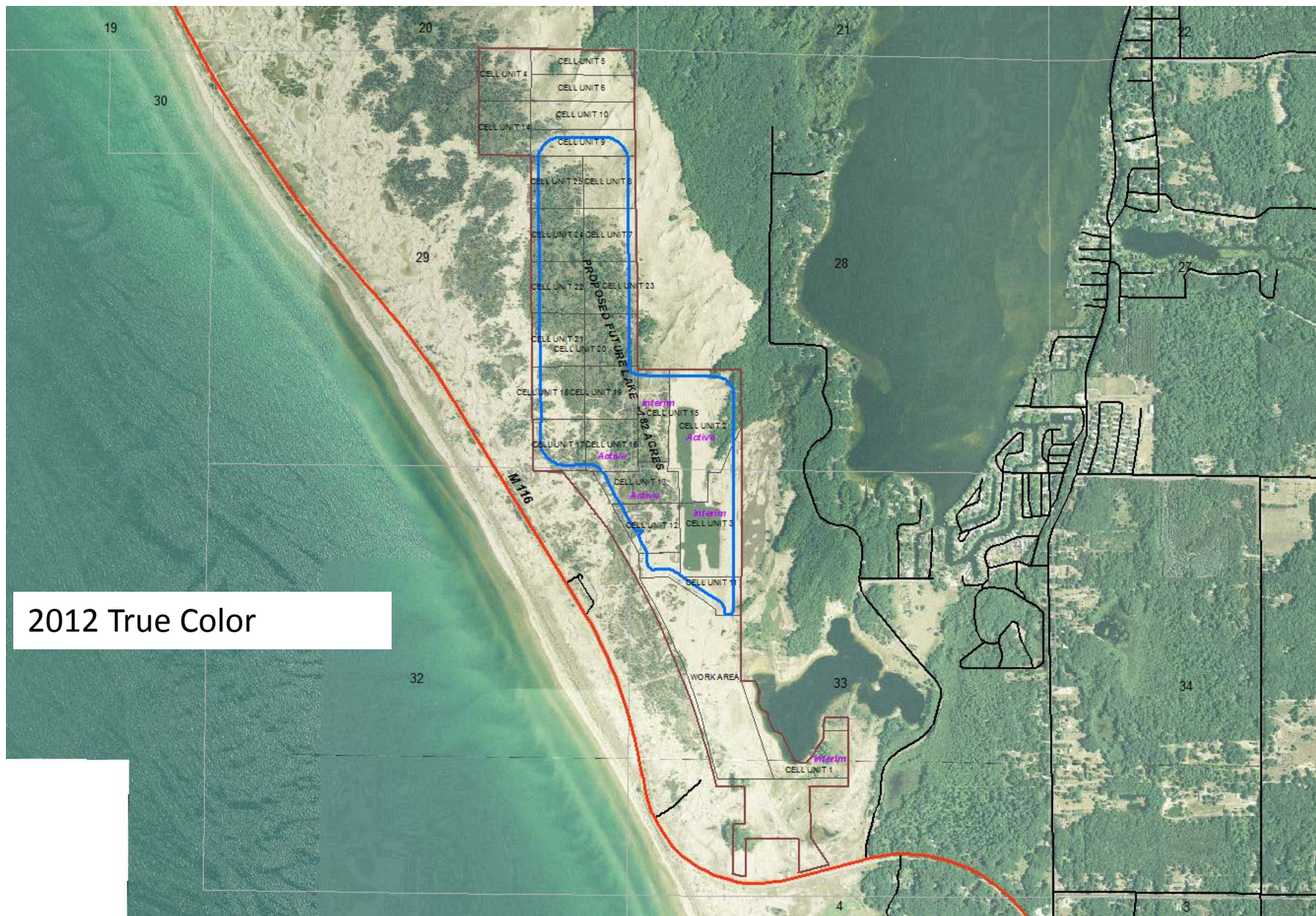
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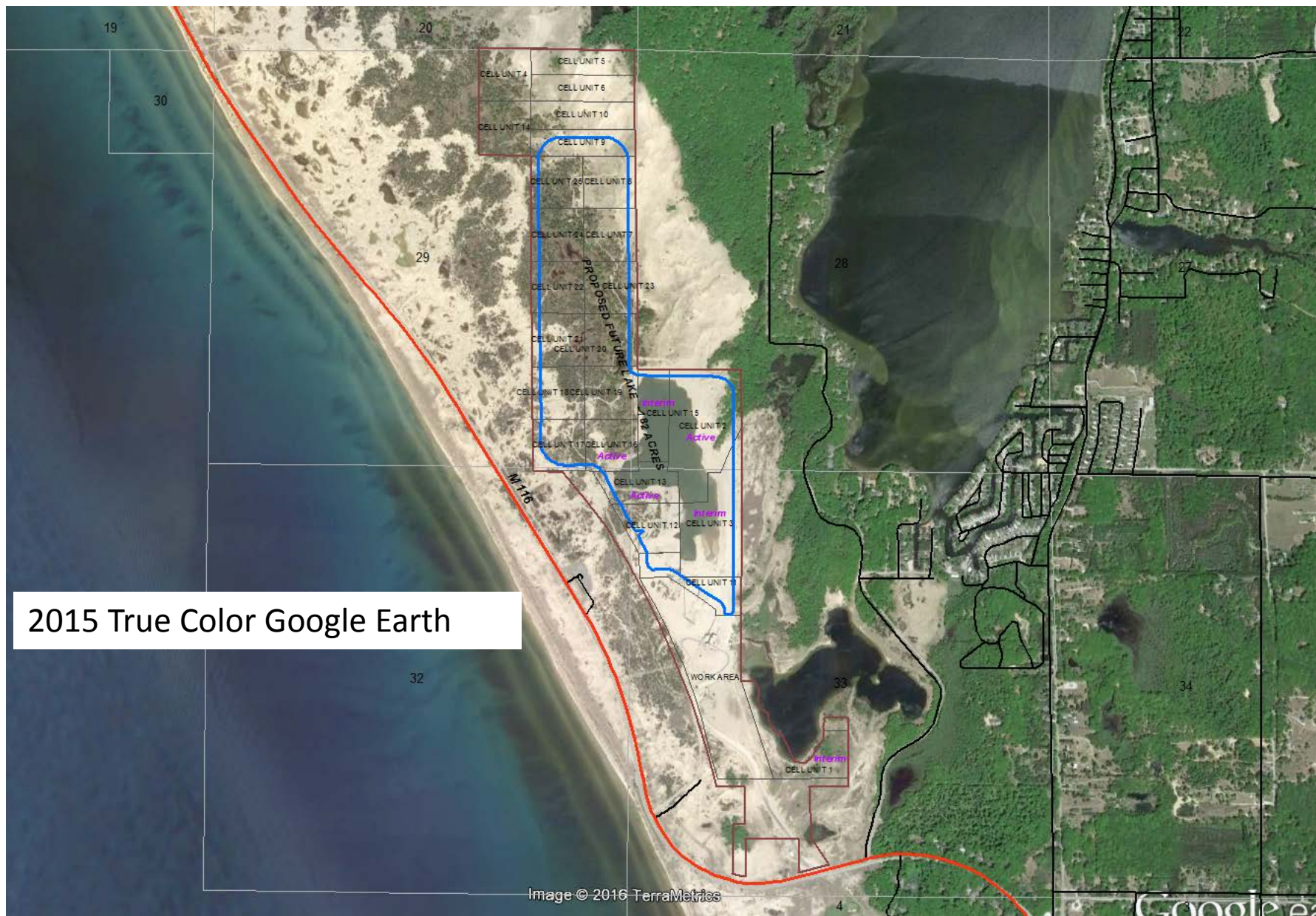


2011 True Color Google Earth









2015 True Color Google Earth